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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,460	12/13/2001	Charles E. Taylor	SHPR-01041USJ SRM	3479
23910	7590	01/11/2005	EXAMINER	
FLIESLER MEYER, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111			TRAN, THAO T	
			ART UNIT	PAPER NUMBER
			1711	
DATE MAILED: 01/11/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/023,460

Applicant(s)

TAYLOR ET AL.

Examiner

Thao T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-40,42-57,59,60,82-86,92-94,100 and 102 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-40,42-57,59,60,82-86,92-94,100 and 102 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/13/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This is in response to the Amendments filed 10/13/2004.
2. Claims 25-40, 42-57, 59-60, 82-86, 92-94, 100, and 102 are currently pending in this application. Claims 1-24, 41, 58, 61-81, 87-91, 95-99, and 101 have been canceled. Claims 25, 27, 44, 46, 92, and 102 have been amended.

### ***Specification***

3. In view of the prior Office action of 4/8/2004, the objection to the abstract has been withdrawn due to the Amendments made thereto.

### ***Claim Rejections - 35 USC § 112***

4. In view of the prior Office action of 4/8/2004, the rejection of claims 27 and 46 under 35 U.S.C. 112, first paragraph, has been withdrawn due to the Amendments made thereto.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 27 and 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 27 and 46 are indefinite due to the use of "said pin electrode in said pin-ring electrode configuration has a triangle-shaped cross section". It is unclear to the examiner which

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cross section Applicants are referring to. It appears from Figure 4I that the cross section of the pin electrode would be circular and not triangle-shaped.

### ***Claim Objections***

7. Claim 25 is objected to because of the following informalities: line 11, "a closest said pin electrode" should be changed to --said pin electrode--. Appropriate correction is required.

### ***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 25-27, 32, 36-39, 41-46, 51, 55-56, 58-60, 82, 86-87, 92-94, 100, and 102 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-4, 6-10, 13-16, 22-26, and 36-37 of U.S. Patent No. 6,544,485.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claims of the patent overlaps with that of the instant claims, rendering them obvious over each other.

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The claims of the patent disclose an air-transporter-conditioner, comprising a housing defining at least one input port and one output port and an air channel therebetween, and an electro-kinetic system in the housing; wherein the electro-kinetic system includes first and second electrode arrays, the first electrodes have tapered profile and are pointed or tapered pin-shaped, and a distal end comprising electrically conductive fibers, the second electrodes have a circular opening and disposed downstream from the first electrodes. Therefore, the electrodes in the claims of the patent read on the pin-ring configuration arrangement of the electrodes in the instant claims.

Thus, the scope of the claims of the patent overlaps that of the instant claims, rendering them obvious over each other.

With respect to the shape of the housing or how the housing is positioned or how the electrodes operate, it has been known within the skill in the art that configuration and functional limitations or how the housing is positioned would have no significant patentable weight in an apparatus claim.

#### ***Remarks***

10. In regards to claims 27 and 46, in light of the specification, the examiner is interpreting that the configuration of the pin electrode being cone-shaped.

***Claim Rejections - 35 USC § 102***

11. In view of the prior Office action of 4/08/2004, the rejection of claims 25-33, 36-38, 41-52, 54-55, 58-60, 82-84, 86-87, and 101-102 under 35 U.S.C. 102(e) as being anticipated by Taylor et al. (US Pat. 5,975,090), has been withdrawn upon further consideration.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 25-33, 35-37, 39, 42-52, 54-56, 59, 82-86, 92-94, and 100-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima (US Pat. 4,516,991) in view of Fritzius (US Pat. 3,638,058).

Kawashima teaches an air cleaning apparatus (electro-kinetic air transporter), comprising an upstanding, elongated casing (housing) with an air inlet in front and an air outlet in the rear, a plurality of dust collecting panel electrodes arranged in parallel, ionizing wires, a voltage source connected to the dust collecting electrodes and the ionizing wires such that an air flow is created between the ionizing wires and the collecting electrodes (see Fig. 2-9; col. 1, ln. 8-29).

Kawashima further teaches a base to support the housing in an upstanding position (see Figs. 2-5). Kawashima further teaches a power source E1, power switch 27 (see Figs. 2 & 4; col. 4, ln. 63-64).

Kawashima, however, does not teach a pin-ring electrode configuration.

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Fritzius teaches an ion wind generator, comprising pairs of pin-shaped cathodes and ring-shaped anodes; wherein an air stream flows from the cathodes toward the anodes (see Fig. 1; col. 1, ln. 8-20). Fritzius further teaches that with this configuration a heavy flow of wind is created, resulting in extremely effective and inexpensive ion generator. Fritzius also teaches the ring anodes attracting some ionized particles in the air stream flowing through the anodes (see Fig. 1; paragraph bridging col. 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the pin-ring electrode configuration, as taught by Fritzius, in the air cleaning apparatus of Kawashima, for the purpose of improving the efficacy and cost of the apparatus.

Although the anode rings of Fritzius do not have a flat surface, it would have been obvious to one of ordinary skill in the art that a slight modification in the shapes of an article would have no significant patentable weight. This is because the anode rings, as taught by Fritzius, are similar to and perform as well as those of the presently claimed invention. See MPEP 2144.04IVB.

Fritzius further teaches the use of alternating pulses in order to accelerate the speed of the ions or airflow further (see col. 1, ln. 23-25; col. 2, ln. 33-37). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed pulse voltage as taught by Fritzius in the apparatus of Kawashima, for the purpose of increasing the airflow and also minimizing anode current thereby reducing electrolysis effects (see col. 1, ln. 30-32).

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Kawashima is silent with respect to a user control being located on the top surface of the housing. However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that whether a user control is on the top surface or on the stand, it would have worked equally well.

The same arguments are presented for the shape of the housing.

Kawashima teaches the apparatus having a handle 9 (see Fig. 4). The reference is silent with respect to the use of a handle to assist in removal of the second electrode out through the top of the housing. However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that Kawashima's handle would play a role in assisting the removal of the second electrode; and that how the second electrode would be removed from the housing would have little patentable weight in an apparatus claim.

14. Claims 34, 40, 53, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima and Fritzius as applied to claims 25 and 44 above, and further in view of Anzai (US Pat. 4,772,297).

Kawashima and Fritzius are as set forth in claims 25 and 44 above and incorporated herein.

The Kawashima combination does not teach the air inlet and air outlet to be covered with louvers.

Anzai teaches the use of air inlet and air outlet with louvers B1 and B2 (see Fig. 1-4). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have included the louvers covering the inlet and outlet, as taught by Anzai, in the



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apparatus of the Kawashima combination, for the purpose of providing better control of the airflow into and out of the apparatus.

15. Claims 38 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima and Fritzius as applied to claims 25 and 44 above, and further in view of Taylor.

Kawashima and Fritzius are as set forth in claims 25 and 44 above and incorporated herein.

The Kawashima combination does not teach the pin electrode including a plurality of conductive fibers.

Taylor teaches the pin electrode comprising conductive fibers (see Fig. 4K; col. 10, ln. 26-36). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the pin electrodes comprising conductive fibers, as taught by Taylor, in the apparatus of the Kawashima combination, for the purpose of more emitting surfaces, hence enhancing the output of ions.

### ***Response to Arguments***

16. Applicant's arguments filed 10/13/2004 have been fully considered but they are not persuasive.

On page 14, last paragraph, of the Remarks, Applicants contend that Fritzius differs from the presently claimed invention in that Fritzius does not teach the anode ring having a flat surface and a convex curved surface that generally face the pin electrode; wherein the flat surface surrounds the convex surface and the convex surface curves from the flat surface to the opening of the anode ring. However, as pointed out in paragraph 13 above, a slight modification in the

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shape of the anode would have no significant patentable weight. Moreover, the anodes as taught by Fritzius would work as equally well as those in the presently claimed invention.

***Conclusion***

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tt  
January 10, 2005

  
**THAO T. TRAN**  
**PATENT EXAMINER**